WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Thursday, August 11, 2005

Hide?	Set Name	Query	Hit Count
	DB=PGPB,USPT,EPAB; PLUR=YES; OP=ADJ		
☐	L38	L36 and biotin	3
☐	L37	L36 and label	4
☐	L36	L35 not @py>2002	38
☐	L35	L34 with EDTA	49
☐	L34	polydentate	1460
☐	L33	L24 and detect$	21
☐	L32	L25 and detect$	19
☐	L31	L30 and label	7
☐	L30	L24 and L12	17
☐	L29	L28 and L12	21
☐	L28	L27 and L12	21
☐	L27	L22 and L12	21
☐	L26	L24 and L22	1
☐	L25	(5-amino-1-carboxypentyl) with (iminodiacetic acid)	23
☐	L24	L23 or (N-(5-amino-1-carboxypentyl)-iminodiacetic acid)	25
☐	L23	(aminobutyl-nitriloacetic acid)or AB-NTA or (N-(5-amino-1-carboxypentyl)iminodiacetic acid)	25
☐	L22	(sulfo-NHS-biotin) or (sulfo-N-hydroxysuccinimidyl-biotin)	212
☐	L21	L19 and detect$	1
☐	L20	L19 and label	0
☐	L19	4877830.pn.	1
☐	L18	5047513.pn.	1
☐	L17	L16 and NTA	6
☐	L16	L15 and biotin	23
☐	L15	L12.ti.	379
☐	L14	chelat$	89911
☐	L13	L12 and L11	15
☐	L12	metal chelat$	20047
☐	L11	L10.ab.	127
☐	L10	NTA or (nitriloacetic acid)	11087

☐	L9	NTA or nitriloacetic acid	11087
☐	L8	L6 and L2	1
☐	L7	L6 and L1	1
☐	L6	howe.in.	2576
☐	L5	L2 and L4	1
☐	L4	L3 with L1	61
☐	L3	detection	670903
☐	L2	L1.ti.	45
☐	L1	phosphoprotein	3917

END OF SEARCH HISTORY

Connecting via Winsock to STN

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LOGINID:SSSPTA1642BJF

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	4	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	5	MAR 02	GBFULL: New full-text patent database on STN
NEWS	6	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	7	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	8	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	9	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	10	MAR 22	PATDPASPC - New patent database available
NEWS	11	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	12	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	13	APR 04	EMBASE - Database reloaded and enhanced
NEWS	14	APR 18	New CAS Information Use Policies available online
NEWS	15	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	16	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus
NEWS	17	MAY 23	GBFULL enhanced with patent drawing images
NEWS	18	MAY 23	REGISTRY has been enhanced with source information from CHEMCATS
NEWS	19	JUN 06	The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available
NEWS	20	JUN 13	RUSSIAPAT: New full-text patent database on STN
NEWS	21	JUN 13	FRFULL enhanced with patent drawing images
NEWS	22	JUN 27	MARPAT displays enhanced with expanded G-group definitions and text labels
NEWS	23	JUL 01	MEDICONF removed from STN
NEWS	24	JUL 07	STN Patent Forums to be held in July 2005
NEWS	25	JUL 13	SCISEARCH reloaded
NEWS	26	JUL 20	Powerful new interactive analysis and visualization software, STN AnaVist, now available

NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 14:25:25 ON 11 AUG 2005

=> file registry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 14:25:35 ON 11 AUG 2005
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 10 AUG 2005 HIGHEST RN 859511-21-0
DICTIONARY FILE UPDATES: 10 AUG 2005 HIGHEST RN 859511-21-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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```
**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
**********************************************************************
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> S 139-13-9/RN
L1 1 139-13-9/RN

=> S 142-73-4/RN
L2 1 142-73-4/RN

=> file medline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.86	1.07

```
FILE 'MEDLINE' ENTERED AT 14:26:36 ON 11 AUG 2005

 FILE LAST UPDATED: 9 AUG 2005 (20050809/UP).  FILE COVERS 1950 TO DATE.

 On December 19, 2004, the 2005 MeSH terms were loaded.

 The MEDLINE reload for 2005 is now available.  For details enter HELP
 RLOAD at an arrow promt (=>).  See also:

    http://www.nlm.nih.gov/mesh/
    http://www.nlm.nih.gov/pubs/techbull/nd04/nd04_mesh.html

 OLDMEDLINE now back to 1950.

 MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the
 MeSH 2005 vocabulary.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s l1
L3          702 L1

=> s l2
L4          125 L2

=> s l3 or l4
L5          821 L3 OR L4

=> s biotin
         18221 BIOTIN
            48 BIOTINS
L6       18227 BIOTIN
                 (BIOTIN OR BIOTINS)

=> s l6 and l5
L7            5 L6 AND L5

=> s phosphoprotein? or (phosphorylated protein?)
          34750 PHOSPHOPROTEIN?
          36983 PHOSPHORYLATED
        1832366 PROTEIN?
           2167 PHOSPHORYLATED PROTEIN?
                  (PHOSPHORYLATED(W)PROTEIN?)
L8        36108 PHOSPHOPROTEIN? OR (PHOSPHORYLATED PROTEIN?)

=> s l8 and l5
L9            5 L8 AND L5

=> s l9 and l7
L10           0 L9 AND L7

=> d ibib l7 1-5

L7   ANSWER 1 OF 5     MEDLINE on STN
ACCESSION NUMBER:    2005206297     MEDLINE
DOCUMENT NUMBER:     PubMed ID: 15839649
TITLE:               Electrogeneration of a poly(pyrrole)-NTA chelator film for
                     a reversible oriented immobilization of histidine-tagged
                     proteins.
AUTHOR:              Haddour Naoufel; Cosnier Serge; Gondran Chantal
CORPORATE SOURCE:    Laboratoire d'Electrochimie Organique et de Photochimie
```

Redox (CNRS UMR 5630), Institut de Chimie Moleculaire de Grenoble FR CNRS 2607, Universite Joseph Fourier, BP 53, 38041 Grenoble Cedex 9, France.
SOURCE: Journal of the American Chemical Society, (2005 Apr 27) 127 (16) 5752-3.
Journal code: 7503056. ISSN: 0002-7863.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200507
ENTRY DATE: Entered STN: 20050421
Last Updated on STN: 20050726
Entered Medline: 20050725

L7 ANSWER 2 OF 5 MEDLINE on STN
ACCESSION NUMBER: 2003464070 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14526081
TITLE: Self-assembly of proteins into designed networks.
AUTHOR: Ringler Philippe; Schulz Georg E
CORPORATE SOURCE: Institut fur Organische Chemie und Biochemie, Albert-Ludwigs-Universitat Freiburg, Albertstrasse 21, D-79104 Freiburg im Breisgau, Germany.
SOURCE: Science, (2003 Oct 3) 302 (5642) 106-9.
Journal code: 0404511. ISSN: 1095-9203.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200310
ENTRY DATE: Entered STN: 20031004
Last Updated on STN: 20031025
Entered Medline: 20031024

L7 ANSWER 3 OF 5 MEDLINE on STN
ACCESSION NUMBER: 97373802 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9230285
TITLE: Iron-induced apoptosis in mouse renal proximal tubules after an injection of a renal carcinogen, iron-nitrilotriacetate.
AUTHOR: Kawabata T; Ma Y; Yamador I; Okada S
CORPORATE SOURCE: Department of Pathology, Okayama University Medical School, Shikata-cho, Japan.
SOURCE: Carcinogenesis, (1997 Jul) 18 (7) 1389-94.
Journal code: 8008055. ISSN: 0143-3334.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 19970813
Last Updated on STN: 19970813
Entered Medline: 19970807

L7 ANSWER 4 OF 5 MEDLINE on STN
ACCESSION NUMBER: 97317982 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9174965
TITLE: Interactions and applications of soluble heterobifunctional affinity chelating polymers in immobilized metal affinity chromatography.
AUTHOR: Ehteshami G; Porath J; Guzman R
CORPORATE SOURCE: Department of Chemical and Environmental Engineering, University of Arizona, Tucson 85721, USA.

SOURCE: Journal of molecular recognition : JMR, (1996 Sep-Dec) 9 (5-6) 733-7.
Journal code: 9004580. ISSN: 0952-3499.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 19970902
Last Updated on STN: 19970902
Entered Medline: 19970818

L7 ANSWER 5 OF 5 MEDLINE on STN
ACCESSION NUMBER: 96207226 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8619473
TITLE: Single-step synthesis and characterization of biotinylated nitrilotriacetic acid, a unique reagent for the detection of histidine-tagged proteins immobilized on nitrocellulose.
AUTHOR: McMahan S A; Burgess R R
CORPORATE SOURCE: McArdle Laboratory for Cancer Research, University of Wisconsin-Madison, 53706, USA.
CONTRACT NUMBER: CA07175 (NCI)
GM28575 (NIGMS)
SOURCE: Analytical biochemistry, (1996 Apr 5) 236 (1) 101-6.
Journal code: 0370535. ISSN: 0003-2697.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199606
ENTRY DATE: Entered STN: 19960620
Last Updated on STN: 19970203
Entered Medline: 19960613

=> d ibib abs kwic l7 4

L7 ANSWER 4 OF 5 MEDLINE on STN
ACCESSION NUMBER: 97317982 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9174965
TITLE: Interactions and applications of soluble heterobifunctional affinity chelating polymers in immobilized metal affinity chromatography.
AUTHOR: Ehteshami G; Porath J; Guzman R
CORPORATE SOURCE: Department of Chemical and Environmental Engineering, University of Arizona, Tucson 85721, USA.
SOURCE: Journal of molecular recognition : JMR, (1996 Sep-Dec) 9 (5-6) 733-7.
Journal code: 9004580. ISSN: 0952-3499.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 19970902
Last Updated on STN: 19970902
Entered Medline: 19970818
AB The interaction of immobilized metal-chelating adsorbents with a dual heterobifunctional soluble polyethylene glycol (PEG) of the form X-PEG-Y is described, where X represents an affinity ligand and Y a chelating agent. The bifunctional PEG derivative used in this study was **biotin**-PEG-iminodiacetic acid (IDA). Affinity and metal binding constants of this conjugate for copper and avidin were found to be in

excellent agreement with the binding affinities of the corresponding unconjugated groups IDA and **biotin**, respectively. The characteristics of the interaction of this bifunctional derivative is described in terms of its adsorption in immobilized metal affinity chromatographic (IMAC) adsorbents. The results show that this derivative can be reversibly and selectively bound to specific IMAC adsorbents under certain experimental conditions. This immobilized scheme resembles a system where an IMAC adsorbent was transformed into an affinity adsorbent as a result of the interactions of both chelating derivatives, one in solution (**biotin**-PEG-IDA) and the other on the solid matrix (IMAC adsorbent). Apparently the modified IMAC adsorbents, once the affinity chelating ligands are attached, exhibit characteristics similar to those of covalently bound affinity ligands in affinity chromatographic systems.

AB . . . where X represents an affinity ligand and Y a chelating agent. The bifunctional PEG derivative used in this study was **biotin** -PEG-iminodiacetic acid (IDA). Affinity and metal binding constants of this conjugate for copper and avidin were found to be in excellent agreement with the binding affinities of the corresponding unconjugated groups IDA and **biotin**, respectively. The characteristics of the interaction of this bifunctional derivative is described in terms of its adsorption in immobilized metal. . . adsorbent was transformed into an affinity adsorbent as a result of the interactions of both chelating derivatives, one in solution (**biotin**-PEG-IDA) and the other on the solid matrix (IMAC adsorbent). Apparently the modified IMAC adsorbents, once the affinity chelating ligands are. . .

CT Avidin
Biotin
*Chelating Agents: CH, chemistry
*Chromatography, Affinity: MT, methods
*Imino Acids: CH, chemistry
*Nickel
*Polyethylene Glycols: CH, chemistry
*Polymers: CH,. . .

RN 1405-69-2 (Avidin); **142-73-4 (iminodiacetic acid)**; **58-85-5 (Biotin)**; 7440-02-0 (Nickel)

=> d ibib kwic l7 5

L7 ANSWER 5 OF 5 MEDLINE on STN
ACCESSION NUMBER: 96207226 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8619473
TITLE: Single-step synthesis and characterization of biotinylated nitrilotriacetic acid, a unique reagent for the detection of histidine-tagged proteins immobilized on nitrocellulose.
AUTHOR: McMahan S A; Burgess R R
CORPORATE SOURCE: McArdle Laboratory for Cancer Research, University of Wisconsin-Madison, 53706, USA.
CONTRACT NUMBER: CA07175 (NCI)
GM28575 (NIGMS)
SOURCE: Analytical biochemistry, (1996 Apr 5) 236 (1) 101-6.
Journal code: 0370535. ISSN: 0003-2697.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199606
ENTRY DATE: Entered STN: 19960620
Last Updated on STN: 19970203
Entered Medline: 19960613

AB . . . Using a one-step reaction, a bifunctional compound was synthesized for detecting histidine-tagged proteins immobilized on

nitrocellulose. This compound has a **biotin** as one functional group and a nitrilotriacetic acid as the other. The nitrilotriacetic acid is used to chelate a Ni(II). . . . at four of its six coordination sites. The remaining two sites are available for binding to a histidine tag. The **biotin** functional group can then be detected using a streptavidin-horseradish peroxidase conjugate and chemiluminescence. Using this biotinylated nitrilotriacetic acid, it is. . .

CT ***Biotin: AA, analogs & derivatives**
*Blotting, Western: MT, methods
Collodion: CH, chemistry
Hela Cells
*Histidine: CH, chemistry
Humans
Lysine: AA, analogs. . .

RN **139-13-9 (Nitrilotriacetic Acid)**; 56-87-1 (Lysine); 576-19-2 (biocytin); **58-85-5 (Biotin)**; 71-00-1 (Histidine); 7440-02-0 (Nickel); 9004-70-0 (Collodion)

```
=> file caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       3.61       4.68

FILE 'CAPLUS' ENTERED AT 14:29:54 ON 11 AUG 2005
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FILE COVERS 1907 - 11 Aug 2005  VOL 143 ISS 7
FILE LAST UPDATED: 10 Aug 2005  (20050810/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> s l1
L11         5866 L1

=> s l2
L12         2683 L2

=> s l11 or l12
L13         7763 L11 OR L12

=> s biotin
          27720 BIOTIN
            107 BIOTINS
L14       27729 BIOTIN
                (BIOTIN OR BIOTINS)
```

```
=> s l14 and l13
L15         59 L14 AND L13

=> s l14 (S) l13
L16          1 L14 (S) L13

=> d ibib

L16  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         1997:335638  CAPLUS
DOCUMENT NUMBER:          127:113815
TITLE:                    Interactions and applications of soluble
                          heterobifunctional affinity chelating polymers in
                          immobilized metal affinity chromatography
AUTHOR(S):                Ehteshami, Gholam; Porath, Jerker; Guzman, Roberto
CORPORATE SOURCE:         Dep. Chem. and Environmental Eng., Univ. Arizona,
                          Tucson, AZ, 85721, USA
SOURCE:                   Journal of Molecular Recognition (1996), 9(5/6),
                          733-737
                          CODEN: JMORE4; ISSN: 0952-3499
PUBLISHER:                Wiley
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
REFERENCE COUNT:          15    THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s metal (S) chelate
       1586829 METAL
        804547 METALS
       1925374 METAL
                 (METAL OR METALS)
         42846 CHELATE
         26684 CHELATES
         56804 CHELATE
                 (CHELATE OR CHELATES)
L17      16297 METAL (S) CHELATE

=> s l17 and biotin
         27720 BIOTIN
           107 BIOTINS
         27729 BIOTIN
                 (BIOTIN OR BIOTINS)
L18         48 L17 AND BIOTIN

=> s biotin?
L19      34792 BIOTIN?

=> s l19 (S) l17
L20         15 L19 (S) L17

=> s phosphoprotein? or (phosphorylated protein)
         45761 PHOSPHOPROTEIN?
         49755 PHOSPHORYLATED
       1771752 PROTEIN
       1232953 PROTEINS
       2059138 PROTEIN
                 (PROTEIN OR PROTEINS)
          2684 PHOSPHORYLATED PROTEIN
                 (PHOSPHORYLATED(W)PROTEIN)
L21      47200 PHOSPHOPROTEIN? OR (PHOSPHORYLATED PROTEIN)

=> s l21 and l20
```

```
L22          0 L21 AND L20

=> s l20 and phospho
         10189 PHOSPHO
            12 PHOSPHOS
         10201 PHOSPHO
                 (PHOSPHO OR PHOSPHOS)
L23          0 L20 AND PHOSPHO

=> s l20 and (label or detec?)
         57629 LABEL
         19525 LABELS
         69004 LABEL
                 (LABEL OR LABELS)
       1485448 DETEC?
L24          8 L20 AND (LABEL OR DETEC?)

=> s l24 not py>2002
       2913018 PY>2002
L25          6 L24 NOT PY>2002

=> d ibib 1-3

L25  ANSWER 1 OF 6  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2001:593243  CAPLUS
DOCUMENT NUMBER:          135:164456
TITLE:                    Method for carrying out a homogeneous-immunoassay
                          based on agglutination using Fab'-biotin
INVENTOR(S):              Deger, Arno; Guillot, Francois; Berger, Michael;
                          Schlieper, Dittmar
PATENT ASSIGNEE(S):       Boehringer Mannheim G.m.b.H., Germany
SOURCE:                   U.S., 8 pp., Cont.-in-part of U.S. Ser. No. 71,593,
                          abandoned.
                          CODEN: USXXAM
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     US 6274325            B1    20010814    US 1994-314432           19940928
     DE 4020204            A1    19920102    DE 1990-4020204          19900625
PRIORITY APPLN. INFO.:                       DE 1990-4020204      A   19900625
                                             US 1991-715593       B2  19910621
                                             US 1991-718798       B1  19910621
                                             US 1993-71593        B2  19930603
REFERENCE COUNT:          14     THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
                                 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25  ANSWER 2 OF 6  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         1999:308592  CAPLUS
DOCUMENT NUMBER:          130:308808
TITLE:                    Method for affinity labelling of oligomers or polymers
INVENTOR(S):              Lopez-Calle, Eloisa; Henco, Karsten
PATENT ASSIGNEE(S):       EVOTEC BioSystems A.-G., Germany
SOURCE:                   Ger. Offen., 14 pp.
                          CODEN: GWXXBX
DOCUMENT TYPE:            Patent
LANGUAGE:                 German
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19745001	A1	19990506	DE 1997-19745001	19971011
PRIORITY APPLN. INFO.:			DE 1997-19745001	19971011

L25 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:324967 CAPLUS
DOCUMENT NUMBER: 129:3853
TITLE: Receptor binding assay, appropriate recombinant fusion receptor for this assay, vector for its production and reagent kit for implementing the receptor binding assay
INVENTOR(S): Loos, Ulrich; Minich, Waldemar B.
PATENT ASSIGNEE(S): B.R.A.H.M.S Diagnostica G.m.d.H., Germany; Loos, Ulrich; Minich, Waldemar B.
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9820343	A2	19980514	WO 1997-EP6121	19971105
WO 9820343	A3	19980716		
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19645729	C1	19980604	DE 1996-19645729	19961106
DE 19728991	A1	19990211	DE 1997-19728991	19970707
EP 938679	A2	19990901	EP 1997-952757	19971105
EP 938679	B1	20020724		
R: AT, BE, CH, DE, FR, IT, LI				
JP 2001505764	T2	20010508	JP 1998-521059	19971105
AT 221204	E	20020815	AT 1997-952757	19971105
PRIORITY APPLN. INFO.:			DE 1996-19645729 A	19961106
			DE 1997-19728991 A	19970707
			WO 1997-EP6121 W	19971105

=> d kwic 1

L25 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2005 ACS on STN
AB . . . carry streptavidin or avidin. The invention also concerns the Fab'-biotin which is bound or linked via linkage groups to a **label** compound which can electrochemiluminesce. The particles having avidin or streptavidin on their surface are magnetic. Use of anti-TSH Fab'-biotin conjugate. . .
IT Chelates
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as **labels**; homogeneous agglutination immunoassay using Fab'-biotin and avidin or streptavidin agglutinatable particles)
IT Luminescence, chemiluminescence
(electrochemiluminescence, **labels** for; homogeneous agglutination immunoassay using Fab'-biotin and avidin or streptavidin agglutinatable particles)
IT Ligands
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(multidentate, as **labels**; homogeneous agglutination immunoassay using Fab'-biotin and avidin or streptavidin agglutinatable particles)
IT 110-86-1D, Pyridine, derivs., uses 10199-00-5, Bipyrazine 12678-01-2D, Phenanthroline, derivs. 37275-48-2, Bipyridyl

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(as **label**; homogeneous agglutination immunoassay using
Fab'-biotin and avidin or streptavidin agglutinatable particles)
IT 7439-88-5D, Iridium, **metal chelates**, uses
7439-98-7D, Molybdenum, **metal chelates**, uses
7440-04-2D, Osmium, **metal chelates**, uses 7440-05-3D,
Palladium, **metal chelates**, uses 7440-06-4D,
Platinum, **metal chelates**, uses 7440-15-5D, Rhenium,
metal chelates, uses 7440-16-6D, Rhodium,
metal chelates, uses 7440-18-8D, Ruthenium,
metal chelates, uses 7440-26-8D, Technetium,
metal chelates, uses 7440-33-7D, Tungsten,
metal chelates, uses 7440-47-3D, Chromium,
metal chelates, uses 7440-50-8D, Copper, **metal**
chelates, uses 7440-74-6D, Indium, **metal**
chelates, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(homogeneous agglutination immunoassay using Fab'-**biotin** and
avidin or streptavidin agglutinatable particles)

```
=> file his
'HIS' IS NOT A VALID FILE NAME
SESSION CONTINUES IN FILE 'CAPLUS'
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.

=> d his

     (FILE 'HOME' ENTERED AT 14:25:25 ON 11 AUG 2005)

     FILE 'REGISTRY' ENTERED AT 14:25:35 ON 11 AUG 2005
L1             1 S 139-13-9/RN
L2             1 S 142-73-4/RN

     FILE 'MEDLINE' ENTERED AT 14:26:36 ON 11 AUG 2005
L3           702 S L1
L4           125 S L2
L5           821 S L3 OR L4
L6         18227 S BIOTIN
L7             5 S L6 AND L5
L8         36108 S PHOSPHOPROTEIN? OR (PHOSPHORYLATED PROTEIN?)
L9             5 S L8 AND L5
L10            0 S L9 AND L7

     FILE 'CAPLUS' ENTERED AT 14:29:54 ON 11 AUG 2005
L11         5866 S L1
L12         2683 S L2
L13         7763 S L11 OR L12
L14        27729 S BIOTIN
L15           59 S L14 AND L13
L16            1 S L14 (S) L13
L17        16297 S METAL (S) CHELATE
L18           48 S L17 AND BIOTIN
L19        34792 S BIOTIN?
L20           15 S L19 (S) L17
L21        47200 S PHOSPHOPROTEIN? OR (PHOSPHORYLATED PROTEIN)
L22            0 S L21 AND L20
L23            0 S L20 AND PHOSPHO
L24            8 S L20 AND (LABEL OR DETEC?)
L25            6 S L24 NOT PY>2002
```

```
=> file pctfull
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        32.10      36.78

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)              SINCE FILE      TOTAL
                                                           ENTRY    SESSION
CA SUBSCRIBER PRICE                                        -0.73      -0.73

FILE 'PCTFULL' ENTERED AT 14:34:05 ON 11 AUG 2005
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FILE LAST UPDATED:          9 AUG 2005      <20050809/UP>
MOST RECENT UPDATE WEEK:       200531        <200531/EW>
FILE COVERS 1978 TO DATE

>>> IMAGES ARE AVAILABLE ONLINE AND FOR EMAIL-PRINTS <<<

=> s nta
          7276 NTA
            24 NTAS
L26       7296 NTA
                (NTA OR NTAS)

=> s nitriloacetic acid
           921 NITRILOACETIC
        245294 ACID
        164169 ACIDS
        254679 ACID
                (ACID OR ACIDS)
L27         908 NITRILOACETIC ACID
                (NITRILOACETIC(W)ACID)

=> s (iminodiacetic acid) or IDA
          1234 IMINODIACETIC
        245294 ACID
        164169 ACIDS
        254679 ACID
                (ACID OR ACIDS)
          1186 IMINODIACETIC ACID
                (IMINODIACETIC(W)ACID)
          2011 IDA
           111 IDAS
          2095 IDA
                (IDA OR IDAS)
L28       3068 (IMINODIACETIC ACID) OR IDA

=> s l26 or l27
L29       7802 L26 OR L27

=> s l26 and l27
L30        402 L26 AND L27

=> s (iminodiacetic acid) and IDA
          1234 IMINODIACETIC
        245294 ACID
        164169 ACIDS
        254679 ACID
                (ACID OR ACIDS)
          1186 IMINODIACETIC ACID
                (IMINODIACETIC(W)ACID)
          2011 IDA
```

```
          111 IDAS
         2095 IDA
                (IDA OR IDAS)
L31       213 (IMINODIACETIC ACID) AND IDA

=> s l30 or l31
L32       609 L30 OR L31

=> s biotin (S) l32
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'BIOTIN (S) L32'
        30002 BIOTIN
          299 BIOTINS
        30023 BIOTIN
                (BIOTIN OR BIOTINS)
L33       406 BIOTIN (S) L32

=> s l31 (S) biotin?
PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
FIELD CODE - 'AND' OPERATOR ASSUMED 'L31 (S) BIOTIN?'
        36647 BIOTIN?
L34        56 L31 (S) BIOTIN?

=> s l34 not py>2002
       294498 PY>2002
L35        32 L34 NOT PY>2002

=> d ibib kwic

L35   ANSWER 1 OF 32    PCTFULL   COPYRIGHT 2005 Univentio on STN
ACCESSION NUMBER:       2002094998 PCTFULL  ED 20021210  EW 200248
TITLE (ENGLISH):        ANALYZING PHOSPHORYLATED PROTEINS
TITLE (FRENCH):         ANALYSE DE PROTEINES PHOSPHORYLEES
INVENTOR(S):            SINGH, Sharat, 3420 Royal Meadow Lane, San Jose, CA
                        95135, US [IN, US];
                        ZIVIN, Robert, A., 9 Pebble Beach Court, Skillman, NJ
                        08558, US [US, US]
PATENT ASSIGNEE(S):     ACLARA BIOSCIENCES, INC., 1288 Pear Avenue, Mountain
                        View, CA 94043, US [US, US], for all designates States
                        except US;
                        ORTHO-MCNEIL PHARMACEUTICALS, INC., U.S. Route 202,
                        Raritan, NJ 08869, US [US, US], for all designates
                        States except US;
                        SINGH, Sharat, 3420 Royal Meadow Lane, San Jose, CA
                        95135, US [IN, US], for US only;
                        ZIVIN, Robert, A., 9 Pebble Beach Court, Skillman, NJ
                        08558, US [US, US], for US only
AGENT:                  THROWER, Larry, W.$, Perkins Coie LLP, P.O. Box 2168,
                        Menlo Park, CA 94026$, US
LANGUAGE OF FILING:     English
LANGUAGE OF PUBL.:      English
DOCUMENT TYPE:          Patent
PATENT INFORMATION:
                        NUMBER              KIND     DATE
                        ---------------------------------
                        WO 2002094998         A2 20021128
DESIGNATED STATES
       W:               AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR
                        CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID
                        IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD
                        MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI
                        SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
       RW (ARIPO):      GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
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RW (EAPO): AM AZ BY KG KZ MD RU TJ TM
RW (EPO): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
APPLICATION INFO.: WO 2002-US16100 A 20020521
PRIORITY INFO.: US 2001-60/292,548 20010521
US 2001-60/334,902 20011024

DETD . . . metal ions. Preferably, an IMAC resin comprises a conventional chromatographic matrix such as agarose, acrylamide, silica, or the like. Metal chelators include
iminodiacetic acid (**IDA**), nitriloacetic
acid (NTA), tetradentate, and the like. Exemplary metal
ions include Cu, Ni2+, Zn2+, C02+ , Fe(III), Sc(III), Al(III), Lu(HI), Th(III),. . .
. . .
antibody together with a secondary antibody having e-tags attached, a haptenized antibody together with a secondary anti-hapten antibody having e-tags attached, a
biotinylated antibody together with streptavidin having e-tags attached, an antibody derivatized
with a ftinctionalized polymer that, in turn, has e-tags attached, or.
. .
. . .
during the preparation, aberrant
cleavage, etc., or other nonspecific degradation products of the polypeptide binding moiety. As
above, a ligand, exemplified by **biotin**, is attached to the polypeptide-binding region so as to be
separated from the e-tag reporter upon cleavage.
. . .
by the addition of a
positively charged moiety or moieties, such as ammonium groups, basic amino acids, etc. Avidin
binds to the **biotin** attached to the detection probe and its
degradation products. Avidin is positively
charged, while the cleaved electrophoretic tag is negatively charged..
. .
. . .
the
e-tag reporter, these molecules will migrate toward the opposite electrode from the released e-tag
reporter molecules. For example, one could use **biotin** and
streptavidin, where streptavidin carries
a positive charge. In the case of a peptide analyte, one embodiment would have cleavage at. . . pyrazolone of the modified methionine, one could bond to an available lysine. The amino group of the pyrazolone would be substituted
with **biotin**. Cleavage would then be achieved with cyanogen
bromide, releasing the e-tag reporter,
but the **biotin** would remain with the peptide and any e-tag
moiety that was not released from the
binding member. Avidin is then used. . .

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Example I
e-Tag Reporter Assay for Protein Analysis
A. Labeling of aminodextran (MW -500,000) with an e-tag moiety and **biotin**
Aminodextran was used as a model for demonstrating e-tag reporter release in relation to a
high molecular weight molecule, which also serves. . . number of amino

groups for I 0 mg aminodextran was calculated as 2x I 0-' moles. For a ratio of 1:4 **biotin** to e-tag
moiety, the number of moles of **biotin** NHS ester employed was 1.85xl 0-6 , and the number of moles
of maleimide NHS ester was 7.4xI 0 10.9 mg of aminodextran was dissolved in 6 mL of 0. 1 %
PBS buffer. 10 mg of **Biotin**-x-x NHS ester and 23.7 mg of EMCS were dissolved together in 1
mL of DMF and added in 50 gL portions. . .

B. Reaction of **biotin** and nialeimide labeled arninodextran with the moiety, SAMSA.

. . .
e-tag moiety to react with maleimide in the aminodextran molecule. For this purpose 0.3 mg
(3x I O-9 moles) of **biotin** and EMCS labeled with aminodextran were dissolved in I Opl of water.

. . .
immunoassay for cytokines
1. 10 gI of assay buffer (O.IX PBS, 40 mg/ml BSA) is mixed with I Al (100 nM) of
biotin-labeled anti-human IL-4 monoclonal antibody (purchased from Pierce, catalogue number
M 13) and 1]d of cytokine IL-4 (Pierce, catalogue number R-IL. . .

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Protocol for direct immunoassay for human IgG
1. 10glofassaybuffer(O.IXPBS,40mg/mIBSA)ismixedwithlgl(IOOnM)of
biotin-labeled anti-human IgG antibody and I]d of human IgG (from Sigma) labeled with an
e-tag moiety ranging in concentration from 0. . .